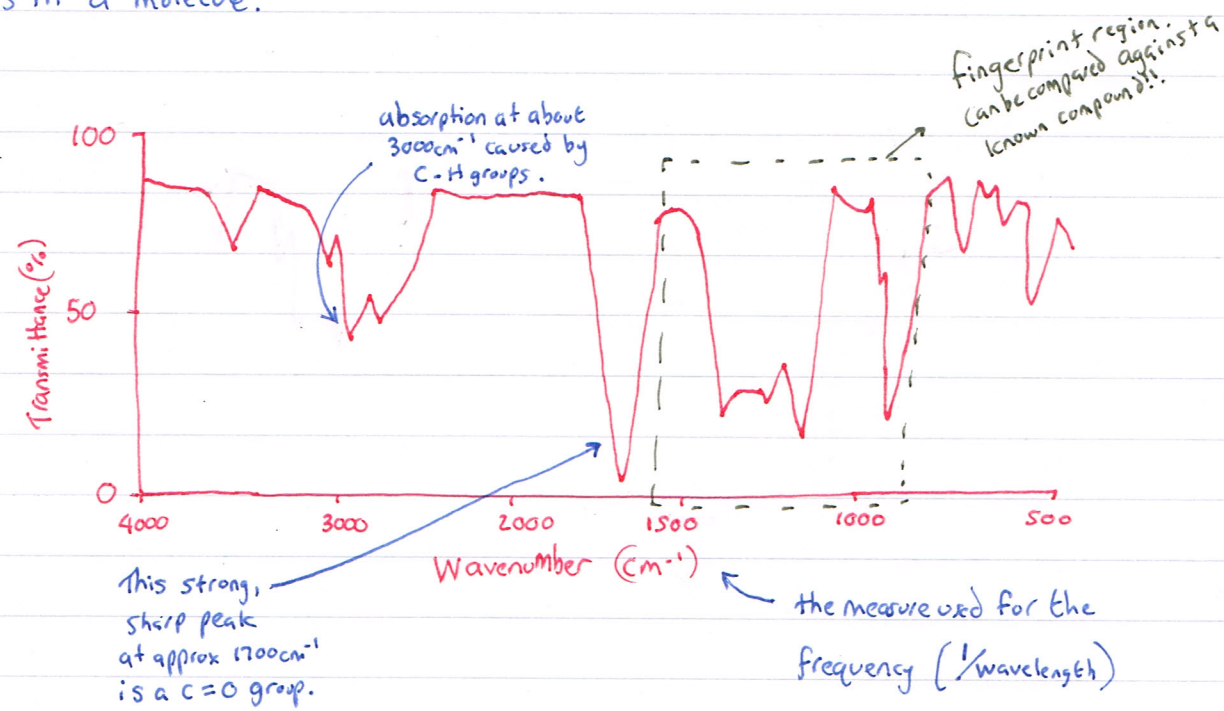
# Infrared Spectroscopy

- A beam of Infrared radiation is passed through a chemical sample and the covalent bonds in the molecule absorb some increasing their vibrational energy.

- Bonds between different atoms absorb different frequencies of IR radiation. If the bonds are in different places then this also changes their frequencies.

- An infrared spectrometer produces a graph that shows you the frequencies of IR that the molecules are absorbing. We use this to identify the functional groups in a molecule.




- All of this links in with global warming! Greenhouse gases such as $CO_2$, $CH_4$ and $H_2O$ are good at absorbing IR radiation!